Tree Protection
February 2001 DCLU Proposal

I. INTRODUCTION

Purpose of Proposal

The purpose of the proposal is for the City to improve the way it protects trees on private property especially when development occurs. The focus of the current proposal is to protect really significant trees throughout the city, even on property that is already developed. Also, the proposal would improve the way all trees over 6 inches in diameter are protected when vacant land is being developed. A summary of the proposal is contained in the cover letter. The goals of the proposal are to:

- Retain as many of Seattle's really significant trees and retain (and expand) as much of Seattle's urban forest on land undergoing development as is compatible with other objectives
- Allow development to occur, including affordable housing
- Minimize permitting delays and additional costs

Value of Trees and Loss of Tree Canopy

There are many economic, aesthetic, and environmental reasons to protect trees. Trees add to property value, both residential and commercial. Trees are beautiful. They soften the edges and bring green into the urban setting. They can frame views and create feelings of relaxation and comfort. They can add tremendously to a neighborhood's quality of life. Trees provide huge environmental benefits. One acre of trees can remove approximately thirteen tons of dust and gases from the atmosphere each year. Trees help prevent soil erosion by slowing rainwater runoff and they filter and purify the water, ensuring cleaner streams and lakes. And, trees provide habitat for birds and animals.

An American Forests study indicated that areas with high vegetation and tree canopy cover comprised 10% of the city's area in 1972, but only covered 5% of the city in 1996. Conversely, areas with low tree cover comprised 81% of Seattle in 1972 and increased to 92% of the city in 1996.

Status Of City Effort To Protect Trees On Property Undergoing Development

The City has been working on the issue of protecting trees on private property, especially on sites undergoing development, for several years now. Attachment I summarizes this work to date.

Options and Issues

All of the following proposal, of course, is subject to public comment at the February meetings. However, there are some issues and options to the proposal that deserve particular emphasis in these public discussions. These are indicated by shading in the discussion of the proposal that follows.

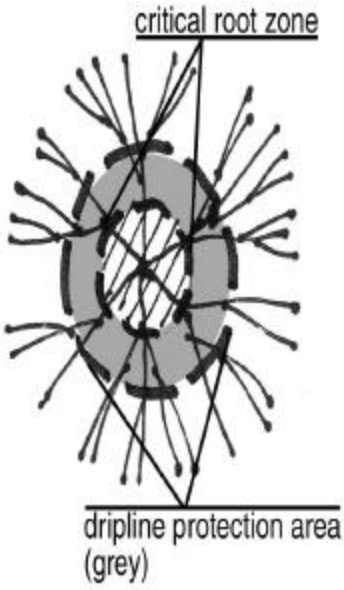
II. PROPOSAL

Definitions

Significant Trees: These are really special healthy trees because of their age, size, and rarity. A proposal to define these trees has been developed in conjunction with local "tree experts" and is presented in Attachment II. These trees represent probably one or two percent of the trees in Seattle on private property.

Regulated trees: all trees over 6" in diameter (measured 4.5' above the ground)

Protected area: that area that must not be altered or significantly disturbed in order to protect trees. The protected area is comprised of two parts: one, the Critical Root Zone, which is half the distance to the drip line (where no disturbance is allowed); the other, the Dripline Protection Area, is the remainder of the area within the dripline (one-third of this area could be disturbed). Some minor additional incursion may be allowed if approved by a qualified tree professional.



Allowed development potential: In single family zones, this would be the maximum lot coverage. In lowrise zones, it would be equal to the floor area that can be achieved with

maximum lot coverage and three floors of development. Other zones use a "reasonable use exception".

Citywide Restrictions on Tree Cutting

In general, the removal of certain trees would not be permitted without an Exception being granted. This applies to Significant Trees anywhere in the City and to trees over 6" on vacant land.

Significant Trees

Removal is prohibited. An Exception can be granted if a tree is hazardous or in conjunction with development if the tree must be removed in order to allow "reasonable use" of the property. The regulations would not apply if it is shown that the tree does not meet the Significant Tree definition (See Attachment II).

Objective: To prevent removal of trees that are special because of their age, size, and rarity.

Procedure: Applicant must indicate tree on site plan if it is over the designated threshold for natives or over 75% of diameter of the Washington Champion Tree for non-natives. Then significance must be determined as noted in Attachment II.

Other Trees (all trees over 6" in diameter)

Removal is prohibited on vacant land. An Exception can be granted if tree is hazardous or if it is in conjunction with development. There would be no restriction on removing these trees on property that is already developed.

Objective: to encourage retention of existing canopy cover, and to prevent tree removal before development review occurs. Consideration of retention is required in some instances (design review, subdivision and short plats). Educational information concerning value of trees and goals for canopy cover would be provided to all applicants.

Procedure: Applicant would only need to show these trees on site plans for larger projects (SEPA, design review, subdivision or short plats).

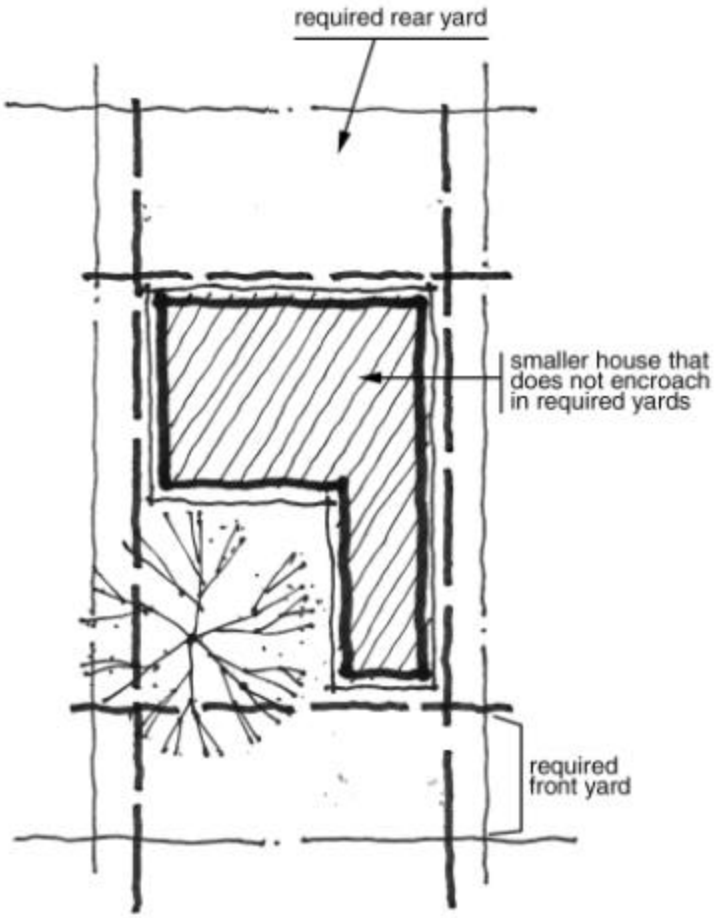
Regulations, by Zone: Significant Trees on Sites Undergoing Development

The basic approach is that Significant Trees should not be removed unless necessary to provide for "reasonable use" of the property. Specific regulations would relate to how "reasonable use" is defined in single family and lowrise zones.

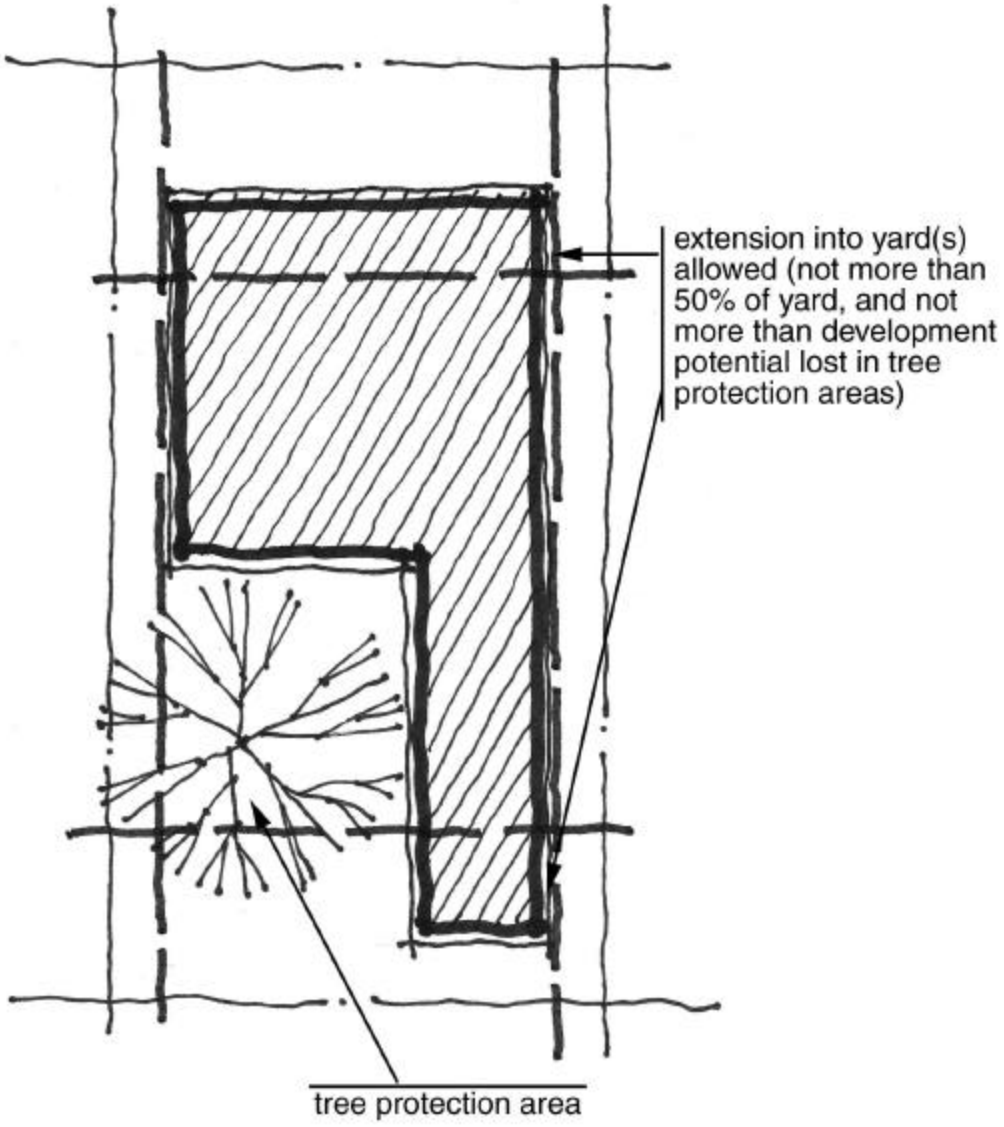
Single Family

Approach: Review would only be required for trees over the diameter threshold (See Attachment II). Basic "reasonable use" seen as house that meets lot coverage requirement, and is able to meet parking and access (curb cut width) requirements.

1. Require identification of all existing trees over a specified diameter, by species, as indicated in Attachment II, in order to identify potential Significant tree.
2. Require arborist report on Significant status; if it is a Significant tree, the tree protection area must be established and the following steps must be taken.
3. If the structure is not proposed to locate within the tree protection area, then no further review is required except that conditions to protect tree during construction must be applied.
4. Establish allowed development potential: equal to maximum permitted development coverage (35% of lot area or 1750 square feet whichever is greater), and meeting parking and access requirements.
5. First step is to try to obtain this development potential without impinging on tree protection area (as defined in step 2) or required yards.



6. If the development coverage potential cannot be achieved without extending into the rear and/or front yards, such extension shall be permitted up to an amount equal to the amount of the tree protection area not located within required yards; the maximum intrusion shall not exceed a 50% reduction in yard requirements.



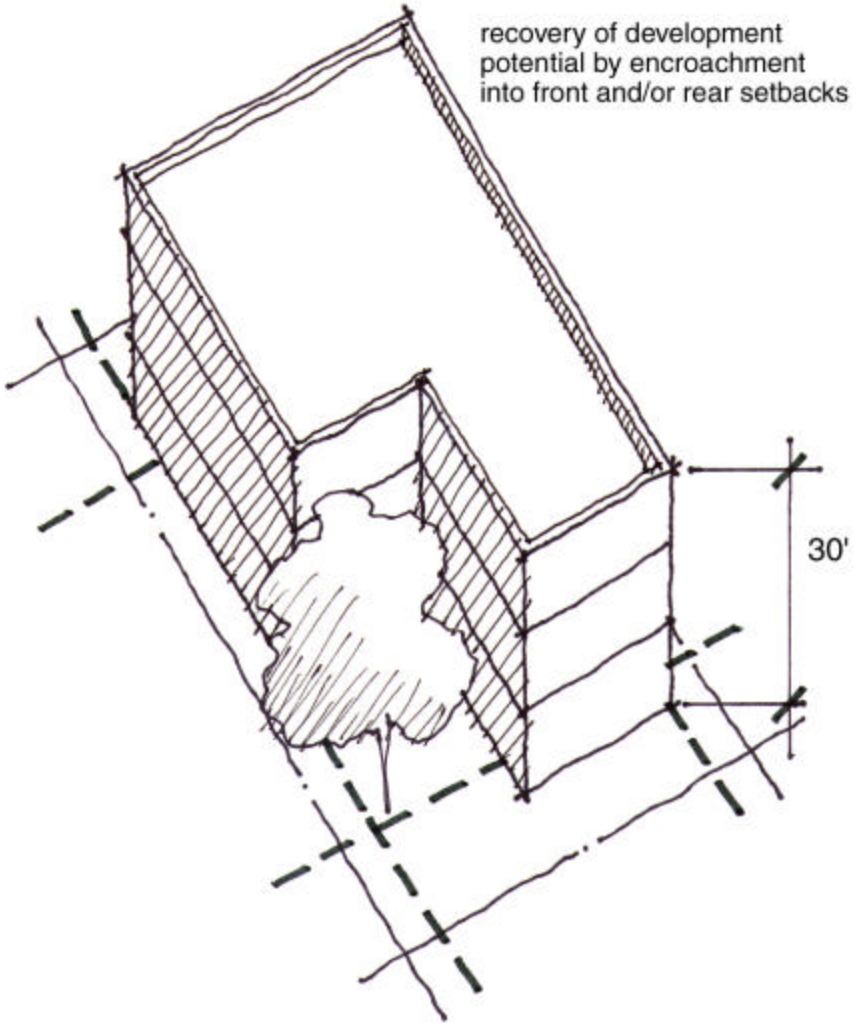
7. If the development potential cannot be achieved through this provision, or if the required tree protection area results in a portion of the house being less than 15 feet in width, then the tree may be removed.

Lowrise zones

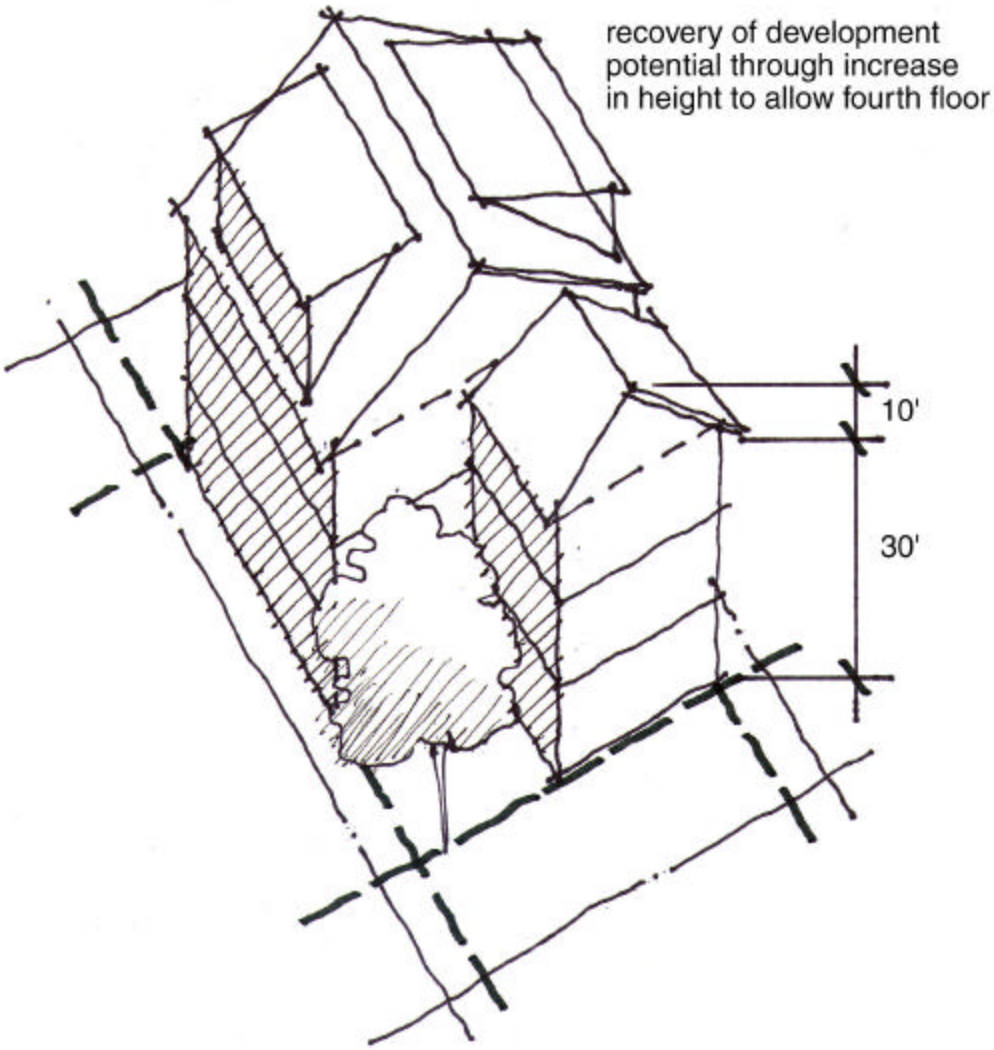
Approach: establish potential waivers and prototypes ahead of time. Handled through administrative design review. Administrative design review entails a 14-day public comment period and a public forum to discuss the proposal.

1. Potential Significant trees identified, Significant status established, and tree protection area determined as in SF zones. Also, as in SF zones, if project will stay out of protected area then can proceed with only the stipulation that conditions to protect tree during construction must be applied. Otherwise the following steps must be taken.
2. If project, because of its small size, would not ordinarily be subject to design review, then must go through administrative design review.
3. Establish allowed development potential: equal to floor area that could be achieved with maximum permitted development coverage and a three-story structure.
4. Design review evaluates two tree protection options:

- Similar provisions to single family: building can extend into required setbacks (up to a maximum of 50% of setback) in order to achieve development potential; also, other development standards, such as open space requirements, can be reduced through design review if this would result in a redesign that would save the tree:



- Development potential achieved without impinging into required yards through an increase in height to obtain development potential on a fourth floor. Maximum amount of floor area on fourth floor is equal to amount of floor area lost by staying out of tree protection area. Other currently "untouchable" development standards (parking requirements and density) cannot be waived:



If development potential cannot be regained in this manner then the tree can be removed.

An Option to be discussed during public review of this proposal: should reduction of parking requirements be permitted through design review to protect a tree? Should

this apply in certain neighborhoods only? Should there be a maximum reduction (perhaps 10% of the number of required parking spaces)?

Midrise zones

Approach: Realize that it is more difficult to protect trees in these zones since greater lot coverage and parking often results in lot line to lot line development. Tree protection should be handled mainly through design review and associated reductions in open space and setback requirements.

1. Identify Significant tree and protection area, as above
2. Currently available development standards waivers (not height, density, or parking) should be considered to protect tree.
3. Tree can only be removed if applicant demonstrates that protecting the tree (development staying out of the tree protection area) would not permit reasonable use of the property.

An Option to be discussed during public review of this proposal: should reduction of parking requirements be permitted through design review to protect a tree? Should this apply in certain neighborhoods only? Should there be a maximum reduction (perhaps 10% of the number of required parking spaces)? Note: increase in height limit is not proposed as an option in Midrise zones.

Commercial Zones

Approach: Realize that it is even more difficult to protect trees in these zones because of the greater development potential and lot line to lot line construction, especially for underground parking. Tree protection should be handled mainly through design review.

1. Basic approach same as Midrise. Zone edge conditions should be considered: where a tree is located in the rear or side portion of a site abutting a less intensive zone, if the area around the tree remains undeveloped it would both preserve the tree and mitigate height, bulk, and scale impacts.
2. Tree can only be removed if applicant demonstrates that protecting the tree (development staying out of the tree protection area) would not permit reasonable use of the property.

An Option to be discussed during public review of this proposal: should reduction of parking requirements be permitted through design review to protect a tree? Should this apply in certain neighborhoods only? Should there be a maximum reduction (perhaps 10% of the number of required parking spaces)? Note: increase in height limit is not proposed as an option in Commercial zones.

Issue: **What about highrise, downtown, and industrial zones: just don't apply them here? Just let SEPA apply?**

Other Regulated Trees (Over 6" in Diameter)

As noted above, removal of these trees on vacant land would not be permitted unless the tree is hazardous or removal is associated with project development. While retention of these trees would not be required, their retention would be encouraged through the Design Review process for larger projects and through education concerning the value of retaining trees. The educational component would be implemented through a brochure handed out at the development application stage. The brochure could state possible City goals with respect to eventual canopy cover:

- Single family- 25% of lot area
- Multifamily – 20%
- Commercial and downtown – 15%

Applicants would be encouraged to try to meet these objectives in the following priority:

- Retention of existing trees on site
- Planting of new trees on site
- Planting of new street trees next to site

Tree Replacement Requirements and Penalties

Replacement Requirement for Significant Trees: Tree replacement would only be allowed after steps to protect the tree, as noted below, have been taken and it is determined that saving tree is not possible. Efforts should be made to replace the tree with a similar kind. Transplanting of the tree could also be considered.

Penalties: Any tree that is removed illegally would be subject to a fine. The fine would be equal to the appraised value of the tree in accordance with the Guide for Plant Appraisal, 9th Edition, or successor.

Attachment I: Background

Comprehensive Plan and 1999 Legislation In 1997 the Seattle City Council added Tree Preservation and Enhancement goals and policies to the Seattle Comprehensive Plan including a policy to encourage the preservation and maintenance of existing healthy tree cover in areas undergoing development.

The following reports were published:

- Protecting the Urban Forest in Areas Undergoing Development, Seattle Strategic Planning Office, March 1998
- Improving Tree Protection During Regulation of Property Development, Seattle Strategic Planning Office and Urban Forest Work Group, February 1999

In 1999 the City Council adopted new Land Use Code regulations that included the following:

- *New landscaping (tree planting and/or retention) requirements for Single Family, LDT, L1, and L2 zones*
- Subdivision and short plat applications required to include the specific location and description of all trees at least 6" inches or more in diameter; criteria for approval now include a determination that the short plat or subdivision is designed to maximize the retention of existing trees
- Flexibility in location of single family, lowrise, and midrise structures to protect trees
- Design review requirement to identify trees 6" or more in diameter on the drawing of existing site conditions.

2000 Work Program The City Council asked that the following issues be looked at this year:

- Provide greater flexibility in Design Review to protect trees
- Protect important trees on projects that don't go through SEPA
- Evaluate options for including remodeling projects under the new (1999) landscaping requirements.

The Council asked that a Work Group, first convened in 1998, be reconvened to look at these issues. The Work Group is composed of people who are active in the preservation of trees throughout the city, people concerned with the ability to conduct business in the city, construction industry representatives, and conservationists. In 2000, neighborhood representatives were added to the group.

The Work Group asked the Department of Design, Construction and Land Use to prepare options for additional regulations to protect trees during development. The Work Group has commented on these options but has not attempted to reach consensus. In order to promote public discussion, DCLU prepared a proposal, with options noted, that was discussed at the public meeting of August 15, 2000.

Following this meeting it became apparent that more work would need to be done to craft a proposal that was able to meet the goals noted in the Introduction. A focus group was created to help refine a revised proposal. A joint meeting was also held between the original Work Group and the new focus group. Following these meetings, DCLU has now formulated a new proposal that is the subject of the February 2001 public meetings. These meetings will provide additional public comment prior to submitting a final recommendation to the City Council.

Other City Efforts

Protecting trees during construction is only one aspect of an overall urban forest program that includes planting of street trees, managing the urban forest on City-owned parkland, etc. The City is in the process of developing an Urban Forest Strategic Plan that will provide a comprehensive, long term perspective on priority resource needs for city trees. It will be completed this year. The plan will assess existing conditions and measure them against nationally recognized criteria for sustainable urban forests. It will recommend and prioritize actions for the City and community to take, and estimate resource needs to achieve them.

Attachment II: Definition of Significant Trees

Definitions

Non-native Trees

Non-native trees that are 75% of percent of the American Forestry Association (AFA) rating for the largest trees of each species in the state, as noted in Champion Trees of Washington, by Robert Van Pelt. AFA ratings are based on a tree's circumference (or diameter), height, and crown spread.

Native Trees

The determination of Significant native trees is a little more complex and is based on a January 2001 report by Native Seattle Trees and their Status, by Arthur Lee Jacobson. Tree species are recommended to be grouped in three categories: 1) trees that never need be saved, 2) trees that should always be saved, and 3) trees that should be saved depending on several factors discussed below. The three categories are based on the following factors:

- relative and actual abundance
- habitat, usual and exceptional
- lifespan (especially if notably short or long)
- reproductive rate (especially if extraordinarily low)
- exceptional trunk sizes and heights
- prevalent judgement as to ornamental value
- post-construction lifespan and safety near buildings and people

The three categories of trees are as follows:

Common, short-lived "weedy" species not worth saving (4):

Red ALDER
Bitter CHERRY
Black COTTONWOOD
Pacific Black WILLOW

Rare species worth saving in all cases (12):

Sitka ALDER
Quaking ASPEN
Paper BIRCH
Black HAWTHORN
Dwarf or Rocky Mountain MAPLE
Oregon White or Garry OAK

Lodgepole / Shore PINE
Sitka SPRUCE
Geyer WILLOW
Mackenzie WILLOW
Hooker Pussy-WILLOW
Pacific YEW

Species sometimes worth saving (16):

Species	**Threshold Diameter**
Pacific Crab-APPLE	1'0"
Oregon ASH	3'0"
CASCARA	10"
Western Red CEDAR	4'0"
Pacific DOGWOOD	6"
Douglas FIR	3'0"
Grand FIR	2'0"
Western HEMLOCK	2'0"
MADRONA	*
Bigleaf MAPLE	4'6"
Vine MAPLE	5"
Western White PINE	2'0"
Western SERVICEBERRY	5"
Piper Pussy-WILLOW	8"
Scouler Pussy-WILLOW	1'8"
Sitka Pussy-WILLOW	5"

* Healthy young specimens on construction sites are more worth saving than are old, large ones. As many specimens as possible in very good condition—regardless of size—should be preserved on construction sites, but they should not be watered or are more likely to decline and die. Requiring large specimens of average or poor health to be preserved is likely to result in a short lifespan because of damage during construction and to post-construction practices such as irrigation—harmful to this species.

Procedure for Determination of "Significant Tree"

Non-native Trees

For projects that do not require Design Review, SEPA, subdivisions or short plats, applicants are only required to indicate those trees that have a diameter of 75% of the diameter of the Champion Tree of Washington. Then a report by a tree professional would be required to determine it's height and crown spread to see if it meets the overall requirement of 75% of the Champion Tree's AFA points. The tree professional would also need to determine whether or not the tree presents a hazard and whether or not it would be able to survive after construction occurs.

Native Trees

For projects that do not require Design Review, SEPA, subdivisions or short plats, applicants are only required to indicate those trees that have a diameter equal to or greater than the "Threshold Diameter" noted above. Then the tree's significance would be determined by a tree professional based on the following factors: the tree's height and crown spread, tree condition, precise location, and likelihood of surviving construction damage and remaining a save healthy specimen for years.